7: Marroquin E-5 (1955) 1957 NU31 Seri NU31

way. Since the preparation of the drinks served to them is not very hygienic, they often produce severe gastro-intestinal upsets and even affect their vision.

Demographic Data

The following chart shows the population distribution by age groups:

SERI POPULATION BY AGE GROUPS AND SEXES
(as of December 31, 1955)

	Men	*Women*
Less than 1 year	4	3
From 1 to 5 years	10	11
From 6 to 10 years	15	12
From 11 to 15 years	15	16
From 16 to 20 years	13	14
From 21 to 25 years	4	1
From 26 to 30 years	7	15
From 31 to 35 years	16	13
From 36 to 40 years	5	2
From 41 to 45 years	2	2
From 46 to 50 years	3	6
From 51 to 55 years	5	5
From 56 to 60 years	—	—
From 61 to 65 years	4	2
From 66 to 70 years	1	2
From 71 to 75 years	—	3
From 76 to 80 years	—	1
From 81 to 85 years	2	—
From 86 to 90 years	—	—
From 91 to 95 years	1	—
Total	107	108

The pyramid of ages formed by the data of the above chart does not present the usual characteristics of a young community in full growth, as is common in the Indian villages; rather it is closer to the old communities, with predomination of the working age groups over the infant and old age groups.

Work

The population able to work can be calculated as that between 11 and 65 years of age; because even though they begin to work very early, the cycle of economic productivity is very long. Calculation of that population gives us the following figures:

POPULATION ABLE TO WORK
(between 11 and 65 years)

Men, 71 or 69% of the masculine population.
Women, 76 or 70% of the feminine population.

We can add that, at least as far as the male population is concerned, the figure of 69% with a potential work capacity is equivalent, in general terms, to the percentage of the population economically active, since one of the singular characteristics of the Seri population is the fact that they constitute a community fully occupied: all the men of working age have a place set aside in the fishing activities; this is an advantageous position for increasing economic development of the tribe. With relation to the women the situation is not the same, since the majority of girls of marriageable age carry on very few productive activities; it could be said that economic responsibility begins with matrimony.

If it is true that all the Seri men are fishermen, it is also true that there is the beginning of some specialization of jobs, which are carried on complementing or as an accessory to the principal occupation. Thus we have among the men:

Carpenters, constructors of *piraguas* (a kind of canoe)	6
Medicine men	14
Farmers	2

And among the women:

Seamstresses	4
Farmers	1
Midwives	22

The relatively high number of medicine men and midwives should not be surprising; Seri popular medicine is very well known and depends principally on magical propitiation and since the magic powers are acquired in a variety of ways, including dreams, and the healing rites are, on the other hand, very simple, it is not strange that medicine men should abound. As for the midwives, it can be said that every woman who has undergone the experience of childbirth feels herself able to help at a birth; nevertheless, it is said that the more experienced women are those best able to take care of those giving birth.

Problems which should be attended to

In addition to the sanitary problem mentioned above, mention should also be made of the problem of agriculture, linked with the necessity for supplying food to an Indian population which since economically it depends principally on fishing, needs to complement its diet with agricultural products to achieve a better one. In close relation

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I

INTRODUCTION

[31] [12] [36] [22] [46] The territory discussed in this paper is somewhat larger than the historical area occupied by the Seris. While Seri settlements are limited today to a quite narrow range, the Tiburon Island and the coast of Sonora immediately adjacent to it, they are familiar with a far larger region, owing to their periodic trips, either on their own after fish, turtle and game or, occasionally, in the temporary employ of the Mexican fish-traders and even farmers. The further away from Tiburon perimeter, the lesser their familiarity with a locality.

The area is limited by Hermosillo in the east, Punta Penasco and Porto Libertad in the north, and Nogales in the south, and finally it includes also the coast of Baja California which the Seris sometimes visit. It also includes all of the islands within that area, Tiburon, Patos, Rasa, Angel de la Guarda, San Lorenzo and San Esteban.

137 With very minor variations this entire region belongs properly to the Sonoran desert. *Palo Verde, Palo Fierro, Pithaya, Mesquite, Cholla, Sahuaro,* prickly pear, elephant tree and creosote bush are the basic plants. Among the vertebrates, 136 such forms as the Sonoran bighorn, deer, cougar, jumping rat, badger, coyote, skunk, rattlesnake, sidewinder and Gila Monster are most conspicuous and diagnostic. Among the birds are the roadrunner, the raven, as well as many pelagic or littoral birds, the pelican and cormorant among them.

132 The region is one of very low rainfall, limited to the hot summer months, in some places occuring only a few times in a year. Winters are chilly and dry with persistent winds and dust, with the temperature falling down, on rare occasion, to just above the freezing point. Summers are intensely hot, with daily temperatures usually over 100 and the water temperature of the sea along the shore not infrequently as much as 85 degrees. There are great differences between diurnal and nocturnal temperatures, very much influencing the desert life.

134 Within this region there are several different ecological zones or perhaps sub-zones, varying from the alkaline flats like Playa Noriega, and the alkali-and salt-permeated soils of Desemboque to the more bountiful slopes of the mountains and the irrigated mud-flats around Hermosillo.

121 For the sake of distinction, I have selected several of the typical localities or zones as a point of reference either because of their ecological distinctions or because of their significance as a landmark, readily delineating a peculiar habitat. Personally I am familiar only with some of the

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13 17. **San Lorenzo Island** — a narrow long island along the coast of Baja, California, and opposite to Tiburon. Altitude up to 1200 feet. Fauna limited, owing to the distance from the mainland. Vegetation much as elsewhere but impoverished. Visited incidentally as is San Esteban.

18. **Angel de la Guarda** — large island along the coast of the peninsula, longer but narrower than Tiburon, slightly lower at its highest point, pretty much waterless. Vegetation as elsewhere, fauna limited. Visited by the Seris very rarely.

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19. **Desemboque (Mountains)** — high mountains immediately back of Desemboque, 5 miles away, rising perhaps to 1200 feet. Vegetation much richer than in Desemboque, with giant *Sahuaro* growing to considerable size. More moisture than immediately near the sea-shore. Full Sonoran fauna with cougar and bighorn. Frequently visited during hunts.

20. **Tepopa (Mountains)** — in distinction from Punto Tepopa as a whole, this refers only to the rugged head. The mountain reaching to over 1800 feet. Thus by Punto Tepopa are meant only the shores and the littoral.

21. **Buena Vista** — a ranch inland on the way to Hermosillo, newly deserted. Water present in the large well and periodically in the dry river. Willows, large mesquite, Palo Verde, etc. Now only incidentally visited by the Seris but formerly of some importance as a camp site.

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22. **San Francisco de Costa Rica**—a ranch inland halfway between Kino and Hermosillo near the main road, presently a large Mexican ranch. Formerly a frequent Seri campsite. The distinctive feature of this locality is extensive sandy areas with very peculiar fauna.

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23. **Hermosillo**—capital of Sonora of some 40,000 people. Extensive agriculture, irrigation, river and water-dammed reservoir and cattle and cotton ranges. Once the Seris ranged almost as far as this town but presently they come here only on special business, to the hospital or for a ride to town, with the Mexican truckers. Their observations in Hermosillo are only incidental.

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[484] 24. **Nogales**—U.S.-Mexican frontier town. Seris come here very rarely and only certain individuals. Observations less than incidental.

25. **Campo Utah** — large track of irrigated flat lands given up to cotton, operated by the Utah Construction Company between San Francisco and Hermosillo. Somewhat off the main road. Selected as a distinct region owing to the irrigation and cotton fields with their ecological peculiarities. Seris visit this only in transit or on most unusual occasions when they work a few days for the Mexicans.

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The Problem

121 The basic problem concerns the state of Seris' zoological knowledge, that is the general knowledge of the natural history of animals in its main outlines; of their ecology, habits, reproduc-

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II

OUTLINE OF SERI CULTURE

161 At the moment their number should have in-
164 creased again, after a disastrous epidemic in the spring of 1955.

Biological Background

142 The Seris are somewhat atypical among the peoples of the general area in that they represent a very slender, sinewy, tall type. This is true of both men and women. This physical type in general is apt to be associated with the desert habitat and the Seris answer the requirements very well. As shall be seen, their economy also repre-
433 sents characteristic adaptation to the desert conditions of pre-agricultural people.

Economy

The Seris readily fell into the category of the pre-agricultural hunters and gatherers with one variant, dependence on the produce of the sea, whether marine turtles, fish or littoral invertebrates.

[241] Here the Seri provide another exception for the region. They are the only group that never had any agriculture. McGee has pointed out their lack of agricultural sense and this has also been mentioned by Kroeber and by incidental Mexican visitors. Of late years, some efforts have been made by the Mexican government and the Amer-
[648] ican Friends' Service Committee to persuade them toward agriculture, but to no avail. The Seris
[464] occasionally hire out to the surrounding Mexican or American rancher-farmers but grow restless after a few days of cotton picking and retire, with their advanced pay lost to the employer. On the other hand, efforts to teach them related practices, well digging for example, also failed to interest them. To this day they remain much in the original pattern of economy.

262 McGee (1898:214) who had a chance to observe
114 them from the first hand and who also had access to valuable information from the outsiders gives the following figures for their diet:

land game, large and small (incl. stolen stock)	21%
waterfowl and eggs, incl. pelican	13
sea-turtles	25
fish	15
shellfish	10
cactus fruit	9
other plants	6
miscellaneous	2
total animal 84%	marine 65%

Kroeber (1930:20) questions these figures and thinks that shellfish represents greater percentage than McGee indicated. He also thinks the use of turtles had been exaggerated. He figures the dependence on the animal diet as 75% and on marine 60% but he suspects that these figures are too high for a band with ready access to countless cacti and mesquite.

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Last year the Seris and their families worked on the ranches gathering corn and beans and made three thousand *pesos*, and then they came to town to spend it. They go back and forth much more than they used to.

We ate supper with Mrs. Thomson and then we went to the Plaza to watch the carnival. Much confetti and *cascaroni* was thrown on boys and girls, and the square was thronged by a mass of weaving people, while the military band played seductive Mexican pieces.

The next morning after breakfast we started shopping and kept at it all day, purchasing things to trade with the Indians and groceries for them and ourselves.

While at one of the stores six or eight Yaqui Indians, from their town about one hundred and thirty miles distant, came to buy things for the Easter period. This is the one big fiesta of the year for them. The women were bare-footed and the men wore rawhide sandals. One Yaqui soldier came with them, and he wore three belts of ammunition. They were very dark, with short hair. Rather gaunt, fierce, striking faces.

We walked into a cigarette factory and saw them manufacture cigarettes by machinery. Four machines were running, turning out one hundred and sixty each per minute. Altogether, twenty-three thousand packets of fourteen each every eight hours. These packets are usually tied together in the shape of a solid wheel, one hundred packets each called a *ruedo*, or wheel.

After dinner we went to Roberto's house and they told us there that the Indian boy Pascual had gone out alone and was lost. The Captain left to hunt for him and later brought him in, and then he went out to hunt for us. We finally saw him on a side street and sent him home to his dinner.

Last night, Roberto said they slept up till midnight, then waked up, opened the bride's bundle, and gloated over the bright colors. Later on they opened it twice again. Then they sang and talked for a while before going to sleep again.

On the following day it was nearly three in the afternoon before we got the car repaired and all supplies on board, including our blankets and grips and lumber for a Seri *balsa*, or boat. This was a heavy load for the Ford truck besides five men, which included the two Indians. Every item had to be considered---food for ourselves and the Indians, all the trade things, lumber for a boat and tools to make it, gas, oil, cans for water and many other things.

We soon left the city behind and rattled through the outskirts of poor adobe or stick mud houses, many half in ruins but still sheltering some family.

After about fifteen or twenty miles we arrived at one of Rafael Ysabel's ranches, *Europa*, where Senor Feliz is the foreman or *Mayor*